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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/915,472	07/26/2001	John Bodenschatz	13156US02	6327
23446	7590	06/14/2005	EXAMINER	
MCANDREWS HELD & MALLOY, LTD			WARE, CICELY Q	
500 WEST MADISON STREET			ART UNIT	PAPER NUMBER
SUITE 3400				
CHICAGO, IL 60661			2634	

DATE MAILED: 06/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	4	Applicant(s)
	09/915,472		BODENSCHATZ, JOHN
	Examiner Cicely Ware	Art Unit 2634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### **Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 14 February 2005.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## **Disposition of Claims**

4)  Claim(s) 1-4, 6, 25, 26-33, 34-52, and 53- 60 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-4, 6, 25, 26-33, 34-52, and 53- 60 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on 14 February 2005 is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
    Paper No(s)/Mail Date \_\_\_\_\_.  
4)  Interview Summary (PTO-413)  
    Paper No(s)/Mail Date. \_\_\_\_\_.  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_\_.  
\_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 2/14/2005 have been fully considered but they are not persuasive because of the improper claiming of a phase lock loop.

### ***Specification***

2. The disclosure is objected to because of the following informalities:
  - a. Pg. 11, line 28, applicant uses PPL. Examiner assumes PLL.  
Appropriate correction is required.
3. The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### ***Claim Objections***

4. Claim 6 is objected to because of the following informalities:
  - a. Claim 6, line 1, applicant has inserted an improper dependency for claim 6. Examiner assumes claim 6 depends on either claim 2 or claim 5. Examiner suggests applicant specify either claim 2 or claim 5 for the dependency of claim 6 for clarification purposes.  
Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. Claims 1-4, 6, 25, 26-33, 34-52, and 53- 60 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

a. Claims 1-4, 6, 25, and 34-52 recite limitations such as "said demultiplexer comprising a phase locked loop for generating the first clock frequency using the second clock frequency", "means for determining the first clock frequency using said second clock frequency, said determining means including at least a digital phase locked loop", and "generating the first clock frequency using a digital phase locked loop and said second clock frequency". However, after reviewing the specification, it is the understanding of the examiner that the "phase locked loop" used to generate the first clock frequency in the claims is actually not a "phase locked loop". In particular, Fig. 6 shows the implementation the device used to create the first clock frequency. The second clock frequency (C1) is input into a feedback loop (block 601). However, the second clock frequency is generated at the output of an NCO (block 603), which is not apart of the feedback loop (block 601). There is no "looping" operation performed from the output of the NCO to the input of the feedback loop. Therefore, it would have been obvious to one skill in the art at the time the invention was made that the first clock frequency is not generated using a phase locked loop, rather the first clock frequency is generated using a feedback loop, half period calculator, and NCO, wherein the half-

period calculator and NCO are separate from the feedback loop (the half period calculator and the NCO are not apart of the feedback loop).

b. Claims 26-33 and 53- 60 recite limitations such as "said demultiplexer comprising at least a second order feedback loop for generating the first clock frequency", "said demultiplexer comprising at least a second order feedback loop having a half period calculator circuit for generating the first clock frequency", "generating the first clock frequency using at least a half period calculator circuit and said second clock frequency', and generating the first clock frequency using at least a second order feedback loop and said second clock frequency". However, after reviewing the specification (particularly Fig. 6), it is the understanding of the examiner that the first clock frequency (F1) is generated at the output of the NCO (block 603) after processing by the second order feedback loop and the half period calculator, not just by simply implementing the second order feedback loop of the half period calculator.

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cicely Ware whose telephone number is 571-272-3047. The examiner can normally be reached on Monday – Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

*Cicely Ware*

cqw  
June 13, 2005



STEPHEN CHIN  
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